Issue No: 70
December: 2010

The Afghanistan Agrometeorological AMonthly Bulletin

Topics Crop Information Precipitation Temperature NDVI

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The Agromet Project of USGS, is working together with the Ministry of Agriculture, Irrigation and Livestock (MAIL) and the Afghan Meteorological Authority (AMA) of Ministry of Transport (MoT)

BULLETIN

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Data Source:

Ministry of Agriculture , Irrigation and Livestock (MAIL), Agromet Project , Afghan Meteorological Authority (AMA), United States Geological Survey (USGS), Food and Agriculture Organization of United Nation (FAO)

Summary

However heavy precipitations are expected during the month of December 2010 and normally the country was receiving much rainfall in this time of the year, dryness continued in the most parts of the country and rainfall was light during December 2010, this critical situation of rainfall was unusual in this month .

temperature had variable situation which in some parts temperature had positive departure while temperature was accompanied by negative departure in some other parts of the country.

However heavy snow was expected during the month of December 2010 but unfortunately dryness continued in most parts of country in this month which, resulted significant change in snow extent and depth during the month of December 2010 compared to the same month of last year and compare to the long term average.

Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
Central	Kabul	Shakardara	Karizmir	Emergence	Normal	Not Existed
		Paghman	Paghman	Emergence	Good	Not Existed
		Kabul	Darulaman	Emergence	Normal	Not Existed
		Surubi	Surubi	**Planting (Winter Wheat)**		
	Panjsher	Dara	Dara	Emergence	Good	Poor Rainfall
		Dashtak	Dashtak	**Planting (Winter Wheat)**		
	Parwan	Syagerd	Gor band	Emergence	Good	Not Existed
		Charikar	Charikar	Emergence	Normal	Poor Rainfall
	Kapisa	Mahmoodraqi	Mahmoodraqi	Emergence	Poor	Not Existed
		Kohistan	Kohistan	**Dormancy**		
		Cyeagerd	Cyeagerd	Emergence	Normal	Poor Rainfall
	Wardak	Chake	Chake	Emergence	Poor	Poor Rainfall
		Jaghatoo	Jaghatoo	**Dormancy**		
East Central	Bamyan	Bamyan	Bamyan	Emergence	Normal	Not Existed
		Yakawlang	Yakawlang	Emergence	Normal	Not Existed
		Panjab	Panjab	**Planting (Winter Wheat)**		
Eastern	Nangarhar	Agam	Agam	Emergence	Normal	Poor Rainfall
		Batikot	Ghaziabad	Emergence	Normal	Not Existed
		Jalalabad	Farm jaded	Emergence	Normal	Not Existed
		Behsood	Behsood	Emergence	Normal	Poor Rainfall

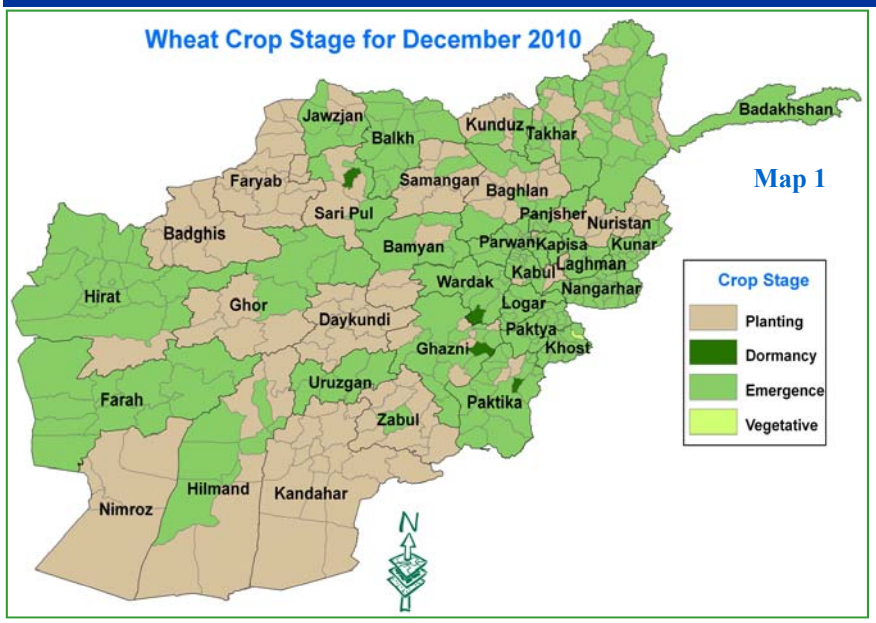
Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
Eastern	Kunar	Asmar	Asmar	Emergence	Normal	Poor Rainfall
		Asad Abad	Asad Abad	**Planting (Winter Wheat)**		
	Laghman	Mihtarlam	Mihtarlam	Emergence	Normal	Shortage of Inputs
	Noristan	Paroon	Paroon	**Planting (Winter Wheat)**		
		Do Ab	Do Ab			
North Eastern	Takhar	Bangi	Bangi	Emergence	Normal	Not Existed
		Taluqan	Taluqan	Emergence	Poor	Poor Rainfall
	Kunduz	Imam Sahib	Imam Sahib	**Planting (Winter Wheat)**		
		Qaliazal	Aqtipa			
		Chardara	Chardara	Emergence	Good	Not Existed
		Kunduz	Kunduz	**Planting (Winter Wheat)**		
		Ali Abad	Ali Abad			
	Baghlan	Pulikhomri	Pozaishan			
	Badakhshan	Argo	Argo			
		Baharak	Baharak			
		Ashkashm	Ashkashm			
		Khash	Kash	Emergence	Normal	Not Existed
		Faiz Abad	Faiz Abad	Emergence	Normal	Poor Rainfall
South Eastern	Khost	Khost	Khost	Emergence	Normal	Poor Rainfall
		Khost	Shimal	Emergence	Normal	Poor Rainfall
		Ali Sher	Ali Sher	Vegetative	Normal	Poor Rainfall
	Paktia	Zormat	Rohani Baba	Emergence	Normal	Poor Rainfall
		Gardiz	Tera	Emergence	Normal	Poor Rainfall
	Paktika	Urgon	Urgon	Emergence	Normal	Not Existed
		Sharana	Sharana	**Dormancy**		
		Khair kot	Khair kot	**Planting (Winter Wheat)**		
	Ghazni	Muqur	Muqur	Emergence	Normal	Poor Rainfall
		Andar	Bande Sardi	**Dormancy**		

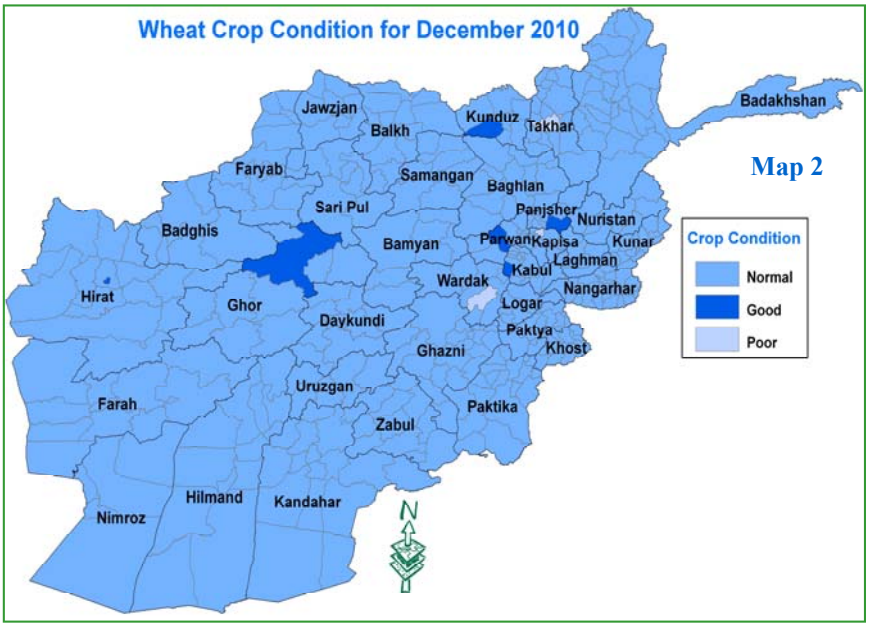
Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
Southern	Nimroz	Zaranj	Zaranj	Planting (Winter Wheat)		
	Kandahar	Kandahar	Kandahar			
	Zabul	Qalat	Qalat	Emergence	Normal	Poor Rainfall
	Urozgan	Tirin Kot	Tirin Kot	Emergence	Normal	Not Existed
	Hilmand	Nad Ali	Nad Ali	Emergence	Normal	Poor Rainfall
		Greshk	Greshk	Planting (Winter Wheat)		
		Nawa	Nawa	Emergence	Normal	Shortage of inputs
		Lashkargah	Bolan	Planting (Winter Wheat)		
Northern	Balkh	Takhta pol	Dihdadi	Emergence	Normal	Poor Rainfall
		Nahrishahi	Nahrishahi	Emergence	Normal	Poor Rainfall
	Jawzjan	Sheberghan	Sheberghan	Emergence	Normal	Poor Rainfall
		Darzab	Darzab	Planting (Winter Wheat)		
	Saripul	Saripul	Saripul			
		Sozmaqala	Sozmaqala	Dormancy		
	Faryab	Maimana	Maimana	Planting (Winter Wheat)		
		Andkhoy	Andkhoy			
	Samangan	Aibak	Aibak	Emergence	Normal	Not Existed
		Dara Souf	Dara Souf	Planting (Winter Wheat)		
Western	Badghis	Qalainow	Qalainow			
		Muqur	Muqur			
	Ghor	Chaghcharan	Chaghcharan	Emergence	Good	Not Existed
	Hirat	Shindand	Shindand	Emergence	Normal	Shortage of inputs
		Zindajan	Zindajan	Planting (Winter Wheat)		
		Gwazara	Falahat	Emergence	Normal	Poor Rainfall
		Hirat	Farm Urdokhan	Emergence	Good	Not Existed
	Farah	Farah	Farah	Emergence	Normal	Poor Rainfall

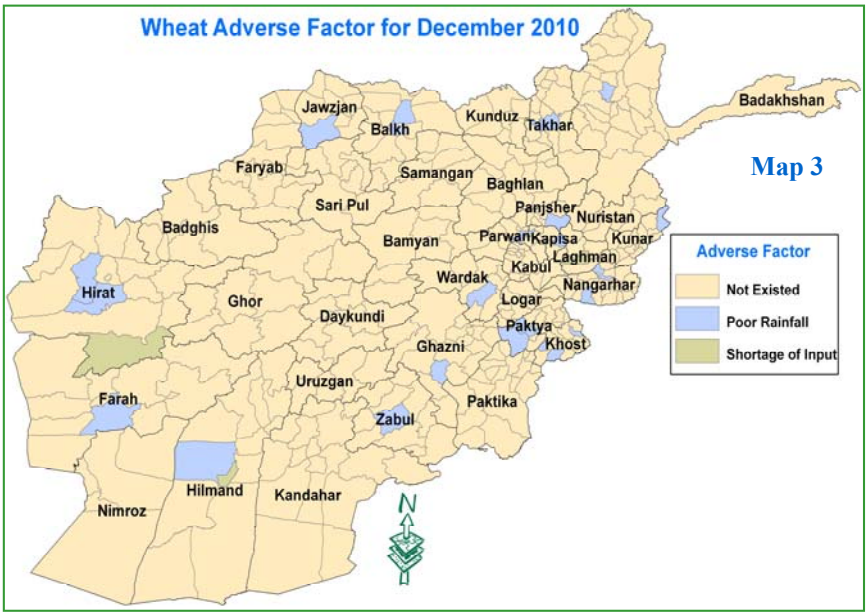
Wheat Crop Stage, Condition and Adverse Factor Maps



Map 1



Map 2



Map 3

Data Source:Agromet Network

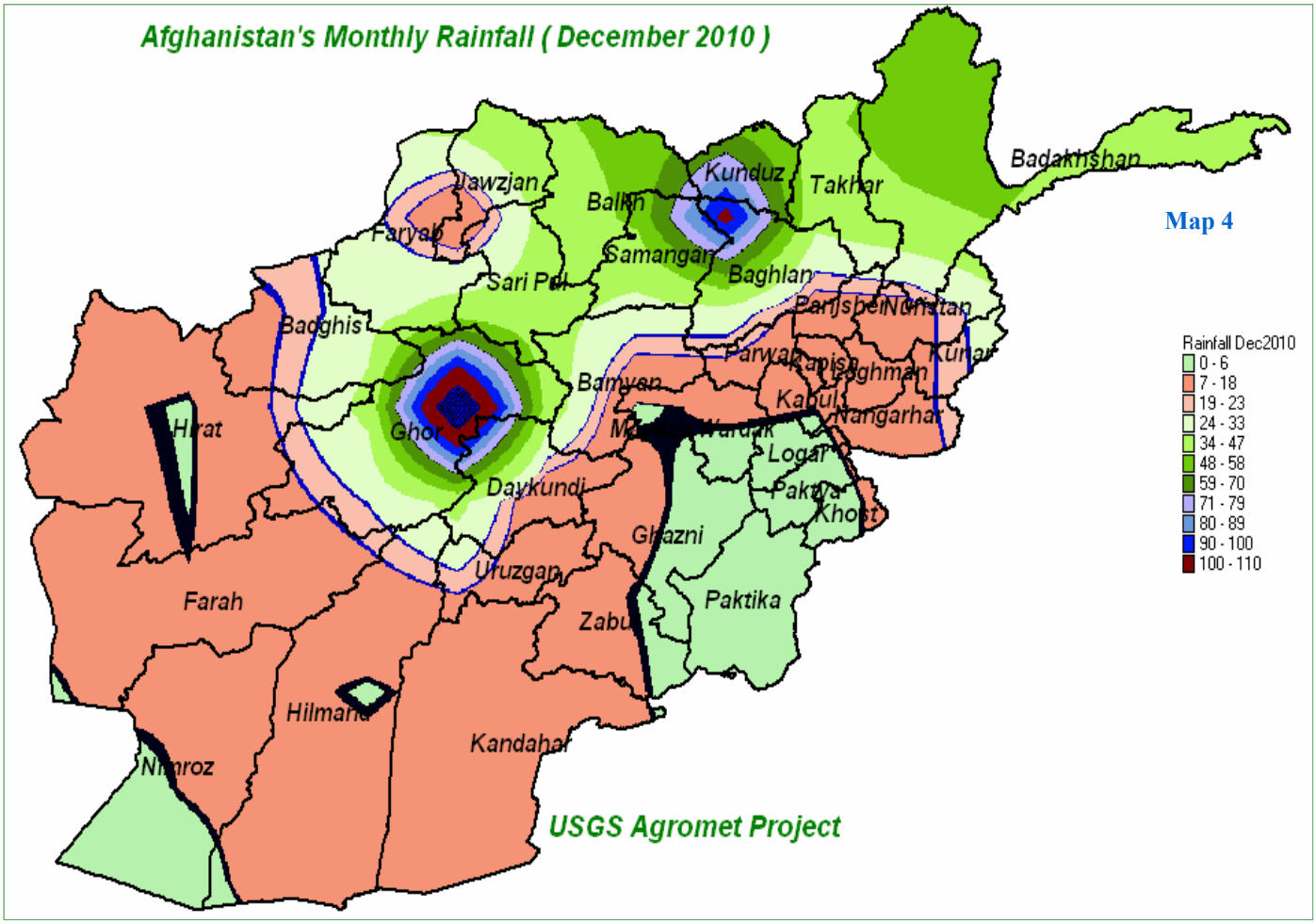
However heavy precipitations are expected during the month of December 2010 and normally the country was receiving much rainfall in this time of the year, dryness continued in the most parts of the country and rainfall was light during December 2010, this critical situation of rainfall was unusual in this month.

Lake of precipitations and significant decrease of rainfall during the winter months will strongly stress water resources and the country is experiencing critical situation of rainfall.

Comparison of rainfall data for the month of December 2010 with the same month in 2009 (chart1) shows unusual significant decrease of rainfall during the month of December 2010 over the same month of last year across the country.

Comparison of rainfall data for the month of December 2010 with the same month of long term average (chart 2) also shows unusual significant decrease of rainfall during the month of December 2010 over the same month of long term average across the country.

During December 2010 distribution of rainfall as usual was variable in the country. As map (4) shows much of occurred rainfall was in the Central Highlands and neighboring areas and some parts in the Northern region. The remaining regions of the country, have received the lowest amount of rainfall and most of the time have experienced dry weather.



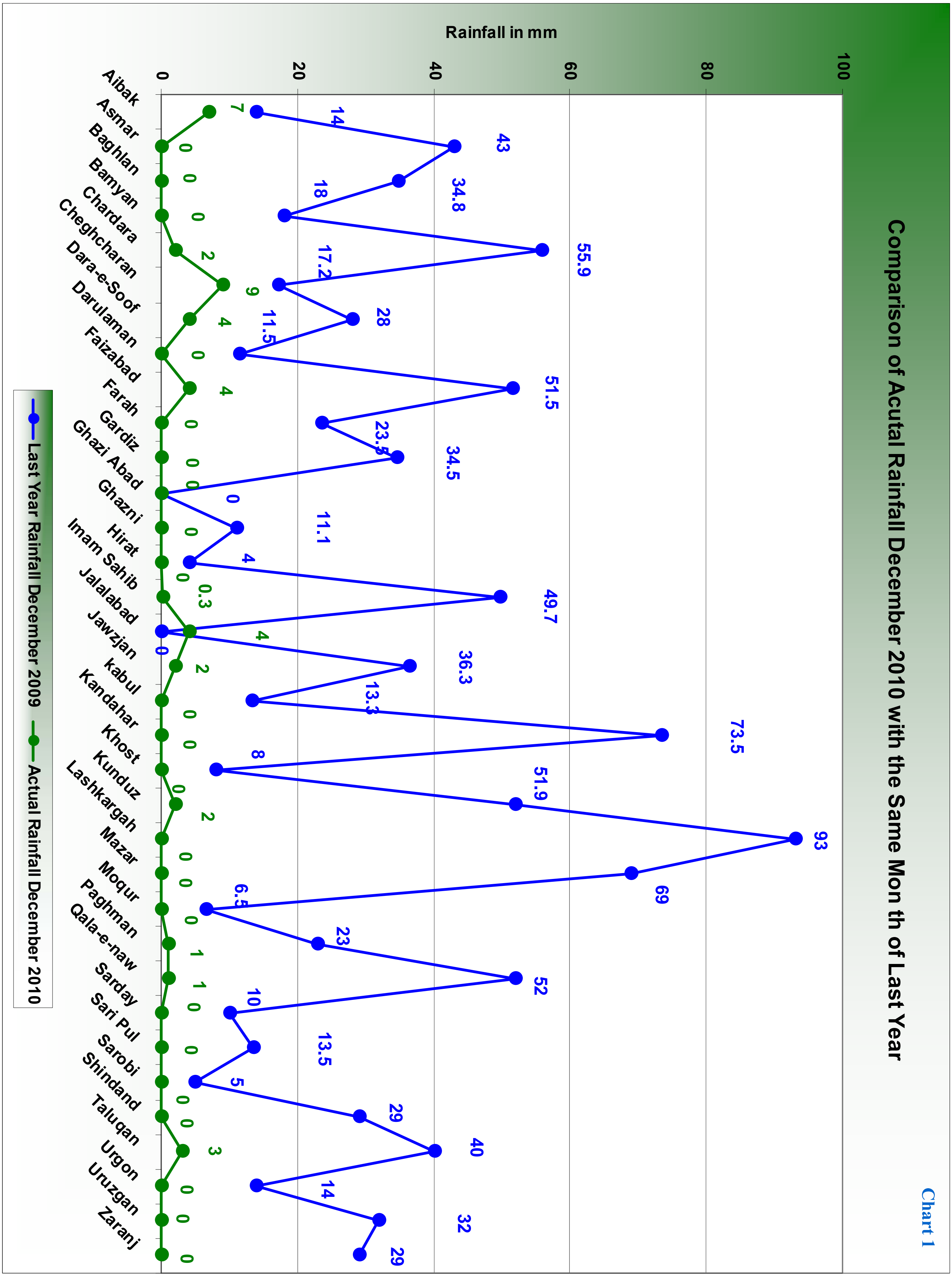

Comparison of Acutal Rainfall December 2010 with the Same Mon th of Last Year
Rainfall in mm
0
20
40
60
80
100
Aibak
Asmar
Baghlan
Bamyan
Chardara
Cheghcharan
Dara-e-Soof
Darulaman
Faizabad
Farah
Gardiz
Ghazi Abad
Ghazni
Hirat
Imam Sahib
Jalalabad
Jawzjan
kabul
Kandahar
Khost
Kunduz
Lashkargah
Mazar
Moqur
Paghman
Qala-e-naw
Sarday
Sari Pul
Sarobi
Shindand
Taluqan
Urgon
Uruzgan
Zaranj
Last Year Rainfall December 2009
Actual Rainfall December 2010

Chart 1

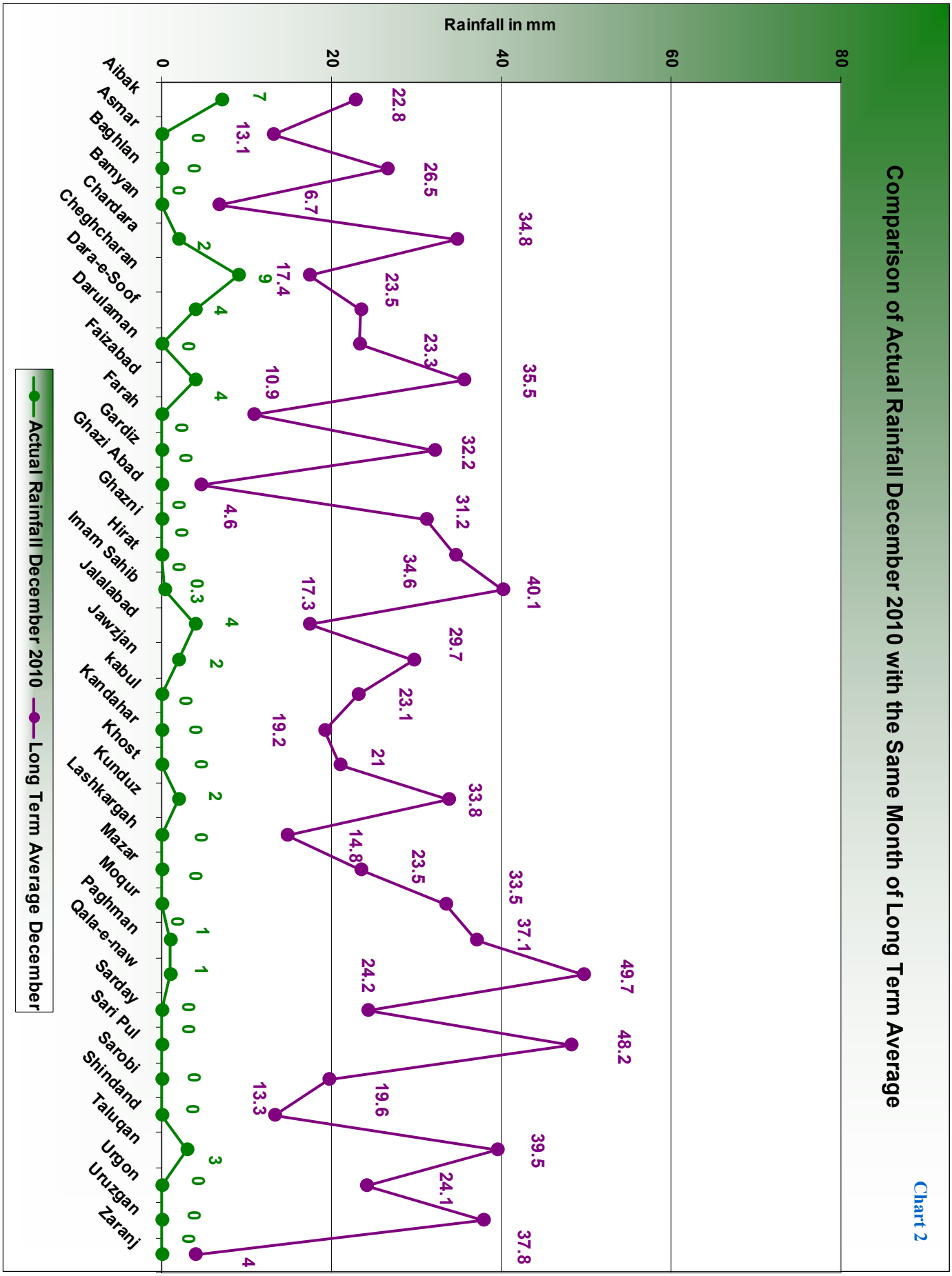

Comparison of Actual Rainfall December 2010 with the Same Month of Long Term Average
Rainfall in mm
0
20
40
60
80
Aibak
Asmar
Baghlan
Bamyan
Chardara
Cheghcharan
Dara-e-Soof
Darulaman
Faizabad
Farah
Gardiz
Ghazi Abad
Ghazni
Hirat
Imam Sahib
Jalalabad
Jawzjan
kabul
Kandahar
Khost
Kunduz
Lashkargah
Mazar
Moqur
Paghman
Qala-e-naw
Sarday
Sari Pul
Sarobi
Shindand
Taluqan
Urgon
Uruzgan
Zaranj
7 13.1 22.8
0 0 26.5
0 6.7
2 34.8
9 17.4 23.5
4 23.3
0 10.9 35.5
4 32.2
0 0 4.6 31.2
0 0 34.6 40.1
0 0 0.3 17.3
4 29.7
2 23.1
0 0 0 19.2
0 21
2 33.8
0 0 14.8
0 23.5
1 1 33.5 37.1
0 0 24.2 49.7
0 48.2
0 0 19.6
0 13.3
3 39.5
0 0 24.1
0 0 37.8
4
Actual Rainfall December 2010
Long Term Average December

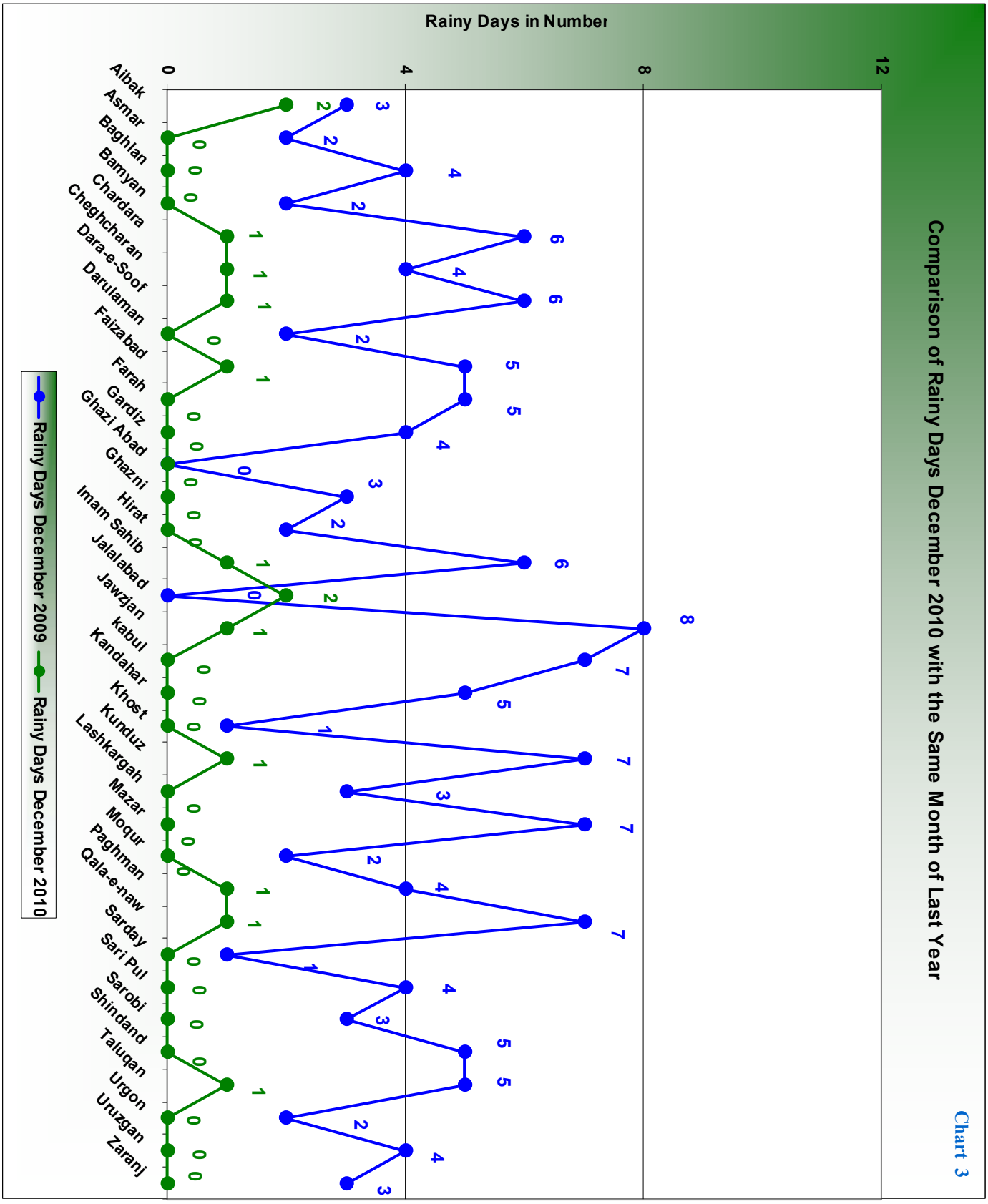
Chart 2

Rainfall for the Month of December 2010

Table 1

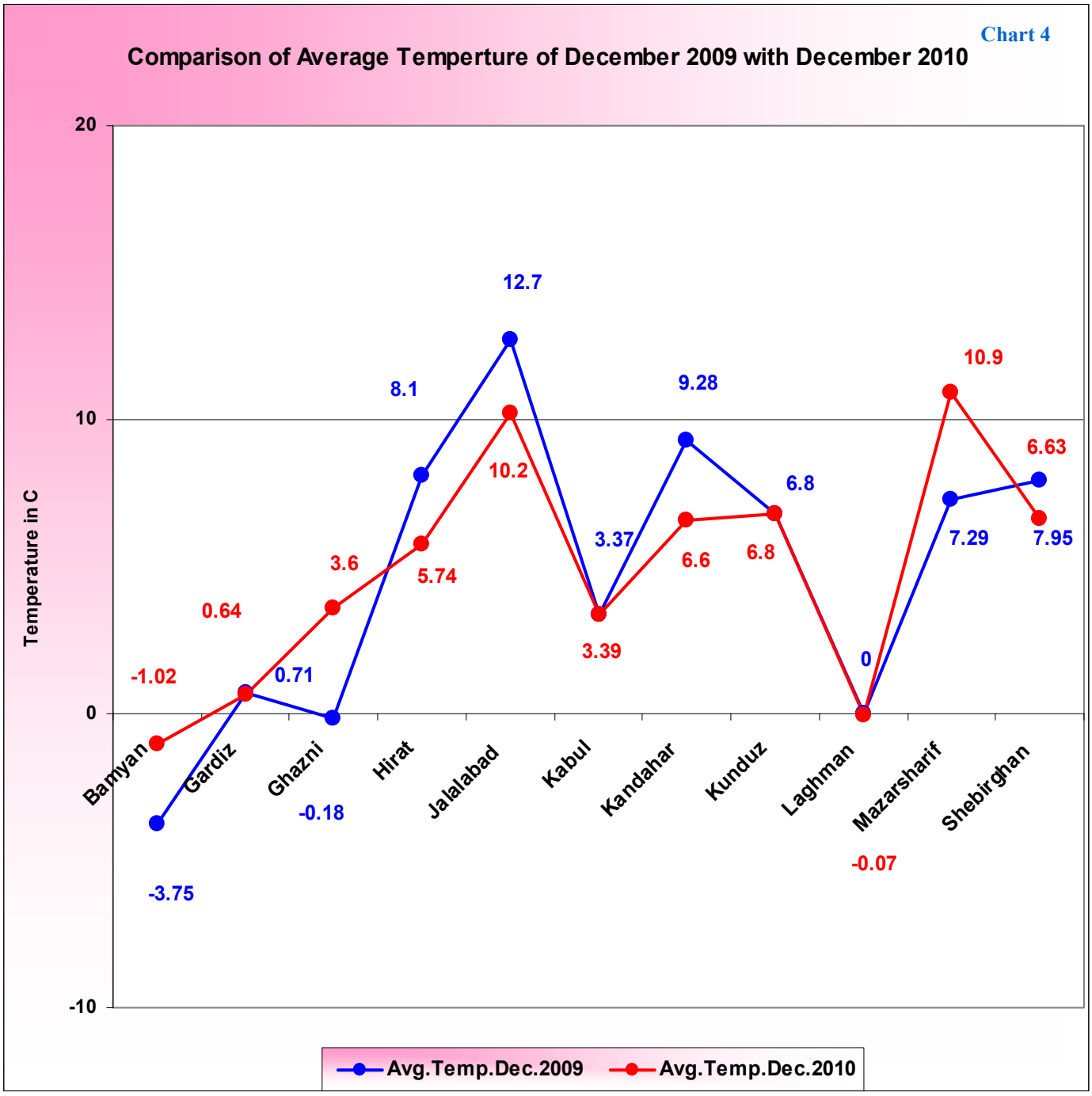
Station	Rainfall December 2009 in (mm)	Rainfall December 2010 in (mm)	Long Term Average December in (mm)
Aibak	14	7	22.8
Asmar	43	0	13.1
Baghlan	34.8	0	26.5
Bamyan	18	0	6.7
Chardara	55.9	2	34.8
Cheghcharan	17.2	9	17.4
Dara-e-Soof	28	4	23.5
Darulaman	11.5	0	23.3
Faizabad	51.5	4	35.5
Farah	23.5	0	10.9
Gardiz	34.5	0	32.2
Ghazi Abad	0	0	4.6
Ghazni	11.1	0	31.2
Hirat	4	0	34.6
Imam Sahib	49.7	0.3	40.1
Jalalabad	0	4	17.3
Jawzjan	36.3	2	29.7
kabul	13.3	0	23.1
Kandahar	73.5	0	19.2
Khost	8	0	21
Kunduz	51.9	2	33.8
Lashkargah	93	0	14.8
Mazar	69	0	23.5
Moqur	6.5	0	33.5
Paghman	23	1	37.1
Qala-e-naw	52	1	49.7
Sarday	10	0	24.2
Sari Pul	13.5	0	48.2
Sarobi	5	0	19.6
Shindand	29	0	13.3
Taluqan	40	3	39.5
Urgon	14	0	24.1
Uruzgan	32	0	37.8
Zaranj	29	0	4

Data Source:Agromet Network



Rainy days had significant decrease during the month of December 2010 compared to the same month of last year across the country. Comparison of recorded rainy days for the month of December 2010 with the same month in 2009 (chart 3) shows unusual significant decrease in rainy days during the month of December 2010 compared to the same month in 2009.

Chart 4



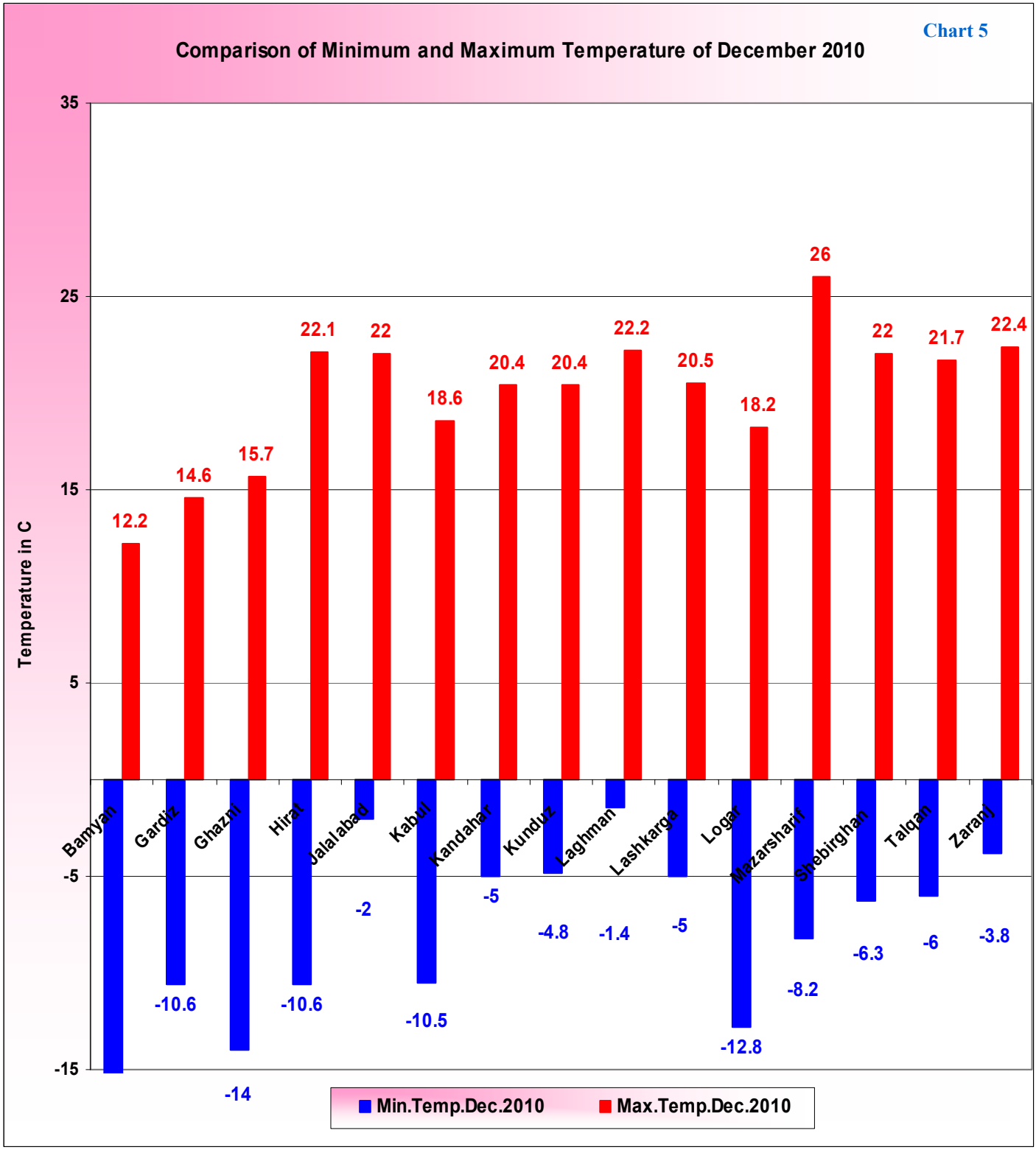
Temperature for the month of December 2010 had Variable Situation than the same month of last year .

During October and November of 2010 temperature was slightly higher than the same months of last year, but during the month of December 2010 temperature had variable situation which in some parts temperature had positive departure while temperature was accompanied by negative departure in some other parts of the country.

Comparison of monthly average of temperature for the month of December 2010 with the same month in 2009 (chart 4) shows variable situation of temperature in different parts of the country in other word temperature was higher in some parts of the country during the month of December 2010 compared to the same month of last year, but temperature was lower in other parts.

Data Source:AMA

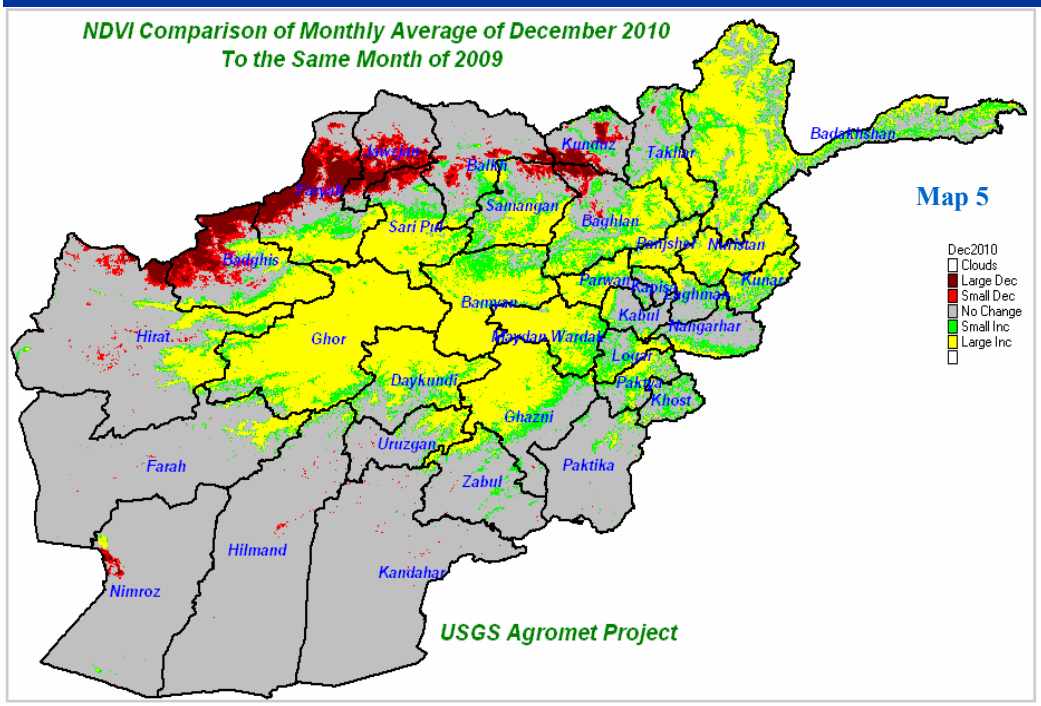
Chart 5

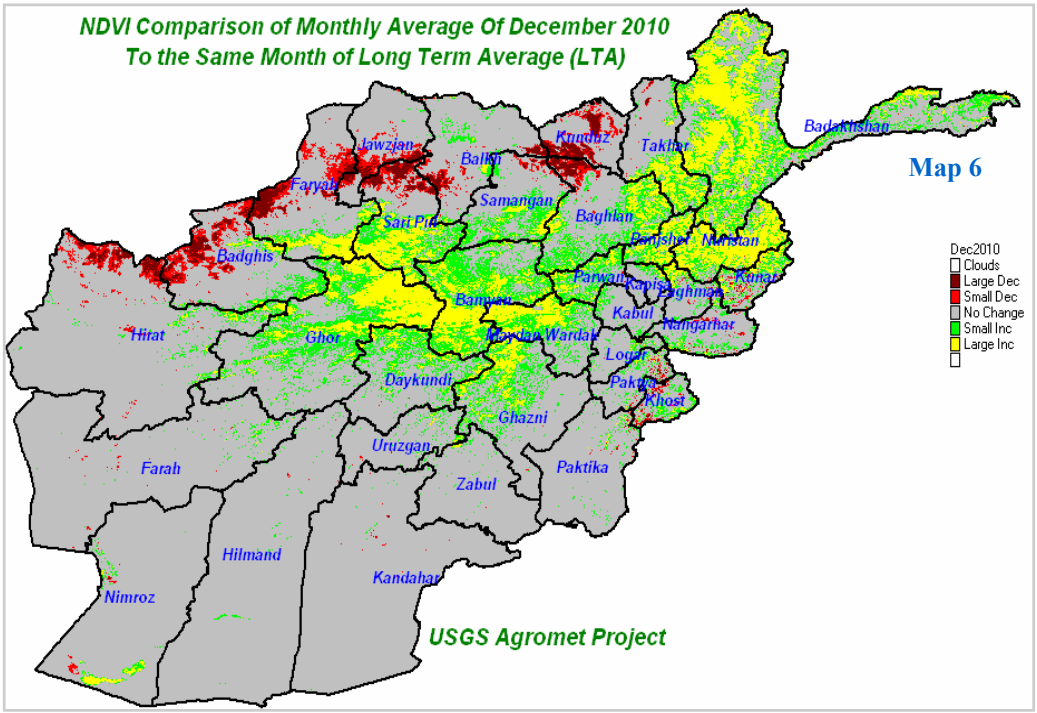


Mazarsharif with 26 ° C was the warmest spot of the Country during the month of December 2010 .

Chart (5) shows maximum and minimum temperature for the month of December 2010. As chart (5) shows Mazarsharif with 26 ° C was the warmest spot of the country during December of this year and Ghazni with – 14 ° C experienced the coldest weather.

Data Source:AMA

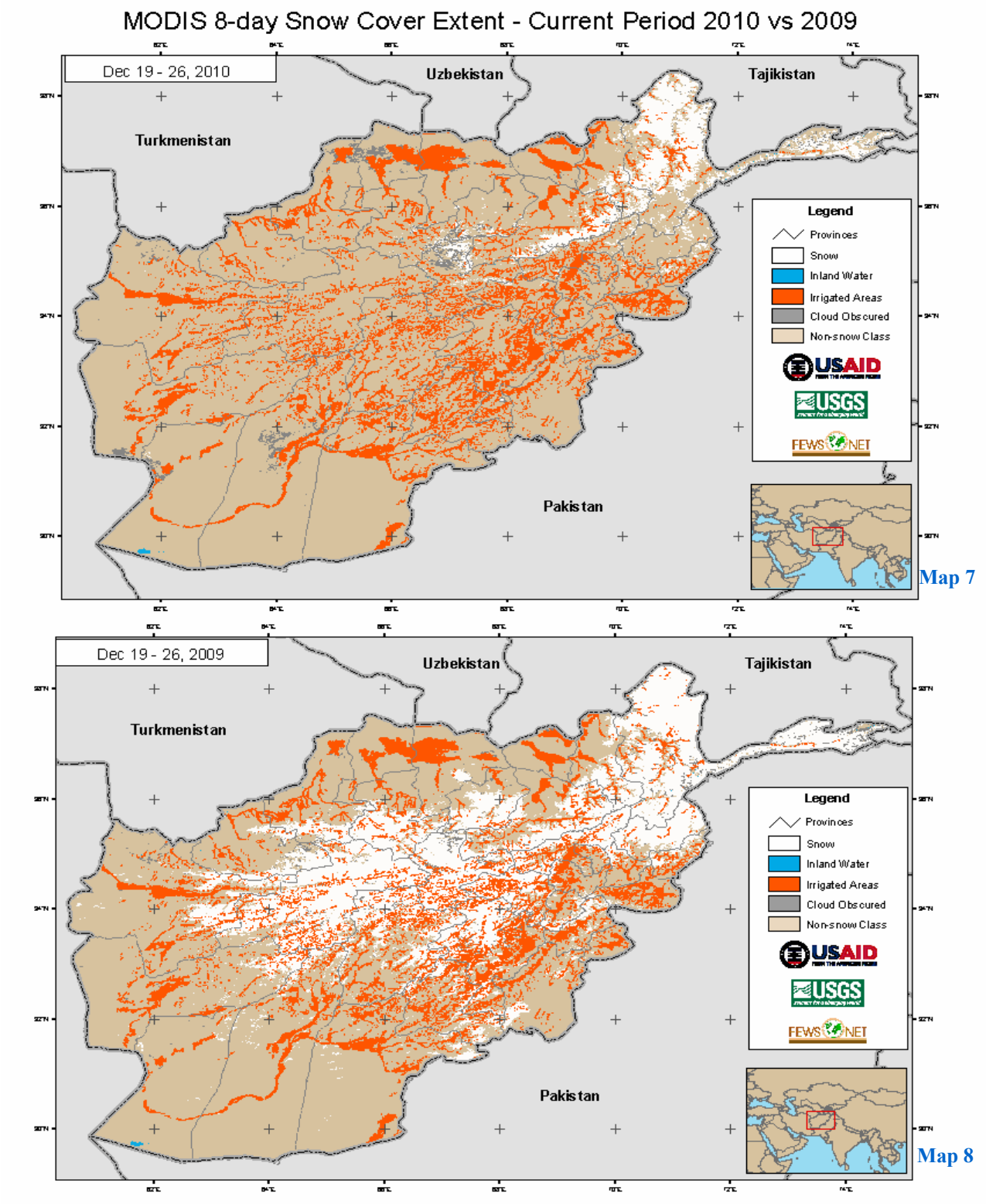




Comparison of monthly average of NDVI for the month of December 2010 with the same month in 2009 (Map 5) shows large increase of NDVI in the Northeastern region, Central Highlands and neighboring areas, Capital, some parts of the Eastern and Southeastern regions during the month of December 2010 than the same month of last year.Large decrease has occurred in NDVI in the Northwestern flat areas too.

There is no change of NDVI in the Southern, Southwestern and Western regions during the month of December 2010 compared to the same month of last year.

Comparison of monthly average of NDVI for the month of December 2010 with the same month of long term average (Map 6) shows an increase of NDVI in the Northeastern region, some parts in the Eastern, and Central Highlands and neighboring areas during the month of December 2010 over the same month of long term average, and large decrease occurred in NDVI in limited areas in some parts of the Northern and Northwestern regions too. There is no change of NDVI in the Southern, Southwestern and Western regions during the month of December 2010 compared to the same month of long term average.



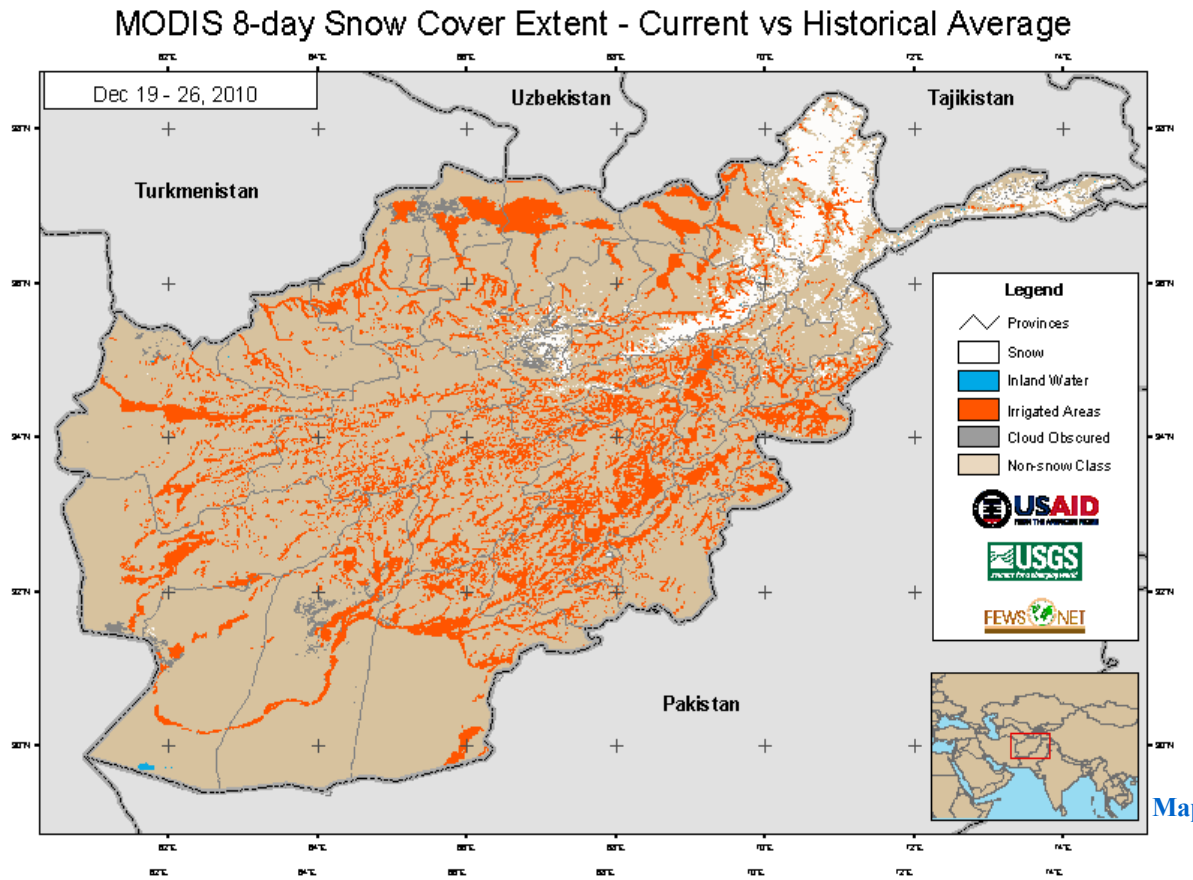
Map 7

Map 8

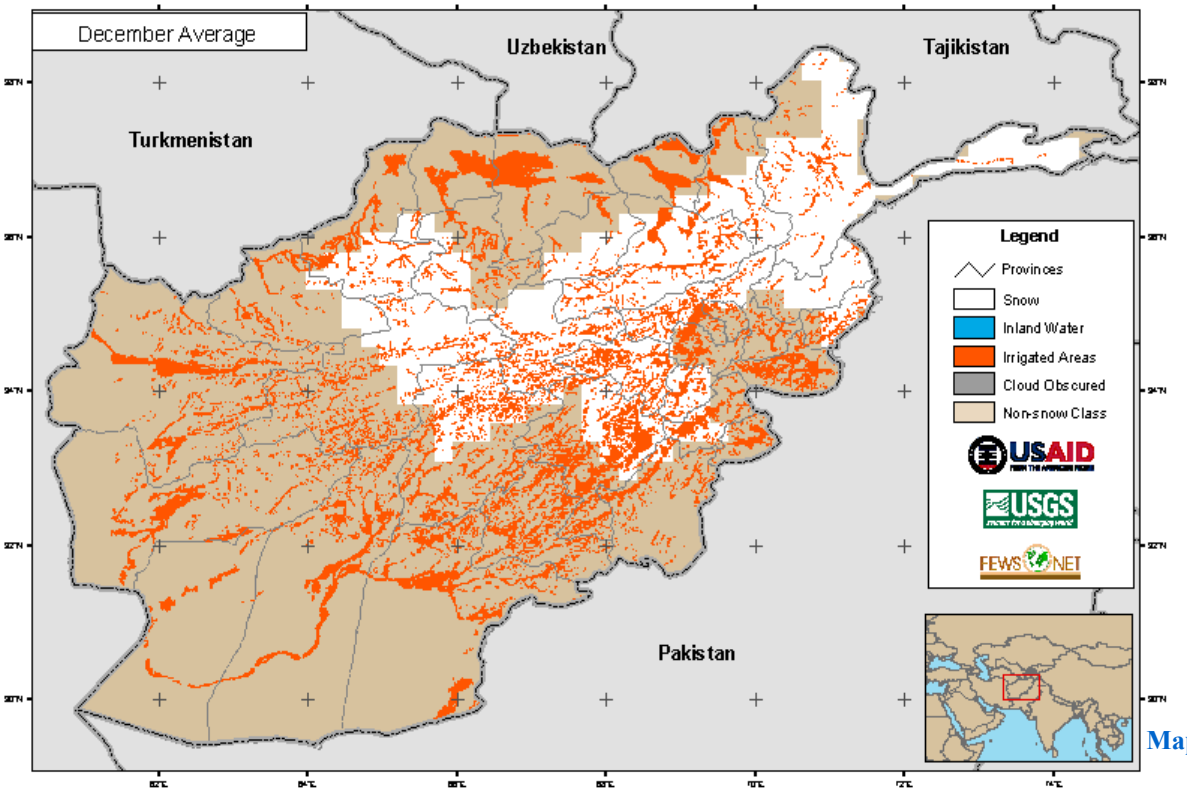
However heavy snow was expected during the month of December 2010 but unfortunately dryness continued in most parts of country in this month which, resulted significant change in snow extent and depth during the month of December 2010 compared to the same month of last year and compare to the long term average in snow coverage areas and prevailing of dry weather in this time of the year cased critical situation in snow depth and extent.

Comparison of snow extent for the period of (Dec 19 – 26) 2010 with the same period of December 2009 (Maps 7 - 8) shows unusual significant decrease of snow extent during above mentioned period of December 2010 than the same period of December 2009.

Data Source:USGS



Map 9

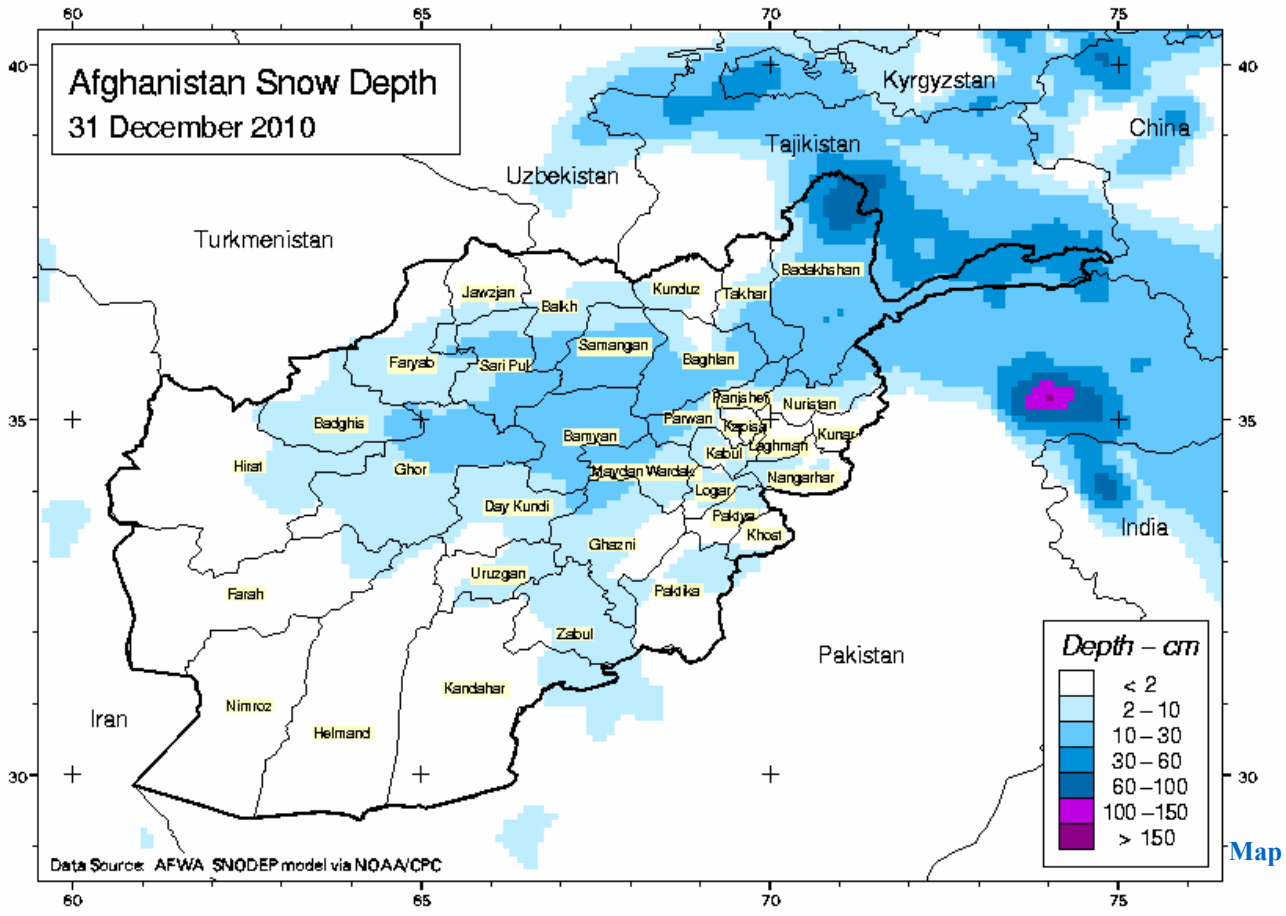


Map 10

Comparison of snow extent for the month of December 2010 with the same period of long term average (Maps 9 - 10) also shows unusual significant decrease of snow extent during the month of December 2010 over the same month of long term average.

Data Source:USGS

Afghanistan Snow Depth for month of December 2010



Map 11

Map (11) shows snow depth at the end of December 2010. As map (11) shows the snow depth has been recorded 60 – 100 cm for the Northeastern extreme portion and 10 – 30 cm for the Central Highlands and neighboring areas.

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